

AI powered Data Curation & Publishing Virtual Assistant

*Optimize interoperability & quality of health data to increase data sharing and reuse
across Clinical Registries & Personal Data Intermediaries*

Hospital Roundtable

Tallinn, 29 April 2026

Terje Peetso
Mall Maasik



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AGENDA (Morning)



Time	Facilitator	Topic
9.00-9.10	Terje	Welcome, introduction and objective of the workshop.
9.10-9.45	Terje/All	Tour de table - hospitals
THE PROBLEM (and the BENEFIT of high quality data for hospitals)		
9.45-10.00	Zoi	Introduction to data sharing / added value of EHDS - opportunities and challenges of hospitals as Data holders <ul style="list-style-type: none"> ● EHDS1 - EEHRxF format and EHR system requirements; ● EHDS2 - management of requests following permit
10.00-10.45	Terje	Discussion: Estimate maturity levels of hospitals around managing health data Examples from hospitals - status of HIMS/EHR systems
10.45-11.00		<i>Coffee break</i>
11.00-12.00	Peeter	Discussion: Requirements (workload/cost) related to <u>Digital</u> aspects, specifically related EHDS and how hospitals can contribute <ul style="list-style-type: none"> ● Data quality of hospital data (what do they do on DQ ?) ● EHDS1. Readiness to generate EEHRxF (“the format”) ● EHDS2. Readiness to manage queries for secondary data use (existing ones and new ones)
PROPOSED SOLUTION (for validation/discussion)		
12.00-12:45	Isabelle	AIDAVA. AI driven data curation & quality enhancement of patient records. How can it support EHDS for Data Holders Discussion on comparative cost model (current situation and with AI powered AIDAVA like assistant)
12:45-13:45		<i>Lunch</i>

AGENDA (Afternoon)



Time	Facilitator	Topic
12:45-13:45		<i>Lunch</i>
CHALLENGES, BENEFITS & RECOMMENDATIONS		
13.45-14.45	Peeter, Terje	Discussion: Summarize discussion so far; direct and indirect BENEFIT of high quality, reusable data (for EHDS, other: personalised care, AI readiness,...)
14.45-15.15	Terje/ Peeter	Consensus on most pressing challenges & potential solutions
15.15-15.30		<i>Coffee break</i>
15.30-16.30	Zoi/Isabelle	Needed success factors (Call to action white paper/ 1 page memorandum): what, who, how
16.30-17.00	Terje	Conclusions - next steps

Welcome and introductions

9.00-9.10	Terje	Welcome, introduction and objective of the workshop.
9.10-9.45	Terje/All	Tour de table - hospitals

The Problem

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EHDS: A Landmark European Achievement

A common legal framework across Europe

Establishes clear rights, obligations, and governance for health data

A shared interoperability baseline (EEHRxF)

Defines *what* must be exchanged and *how* across Member States

A dual-use vision

- **EHDS1**: empowers citizens and supports continuity of care
- **EHDS2**: enables research, innovation, and public health

A scalable foundation for the future

Creates the conditions for cross-border services, AI, and data-driven healthcare

EHDS Regulation vs the EHDS itself

The Regulation defines what must be done. It defines:

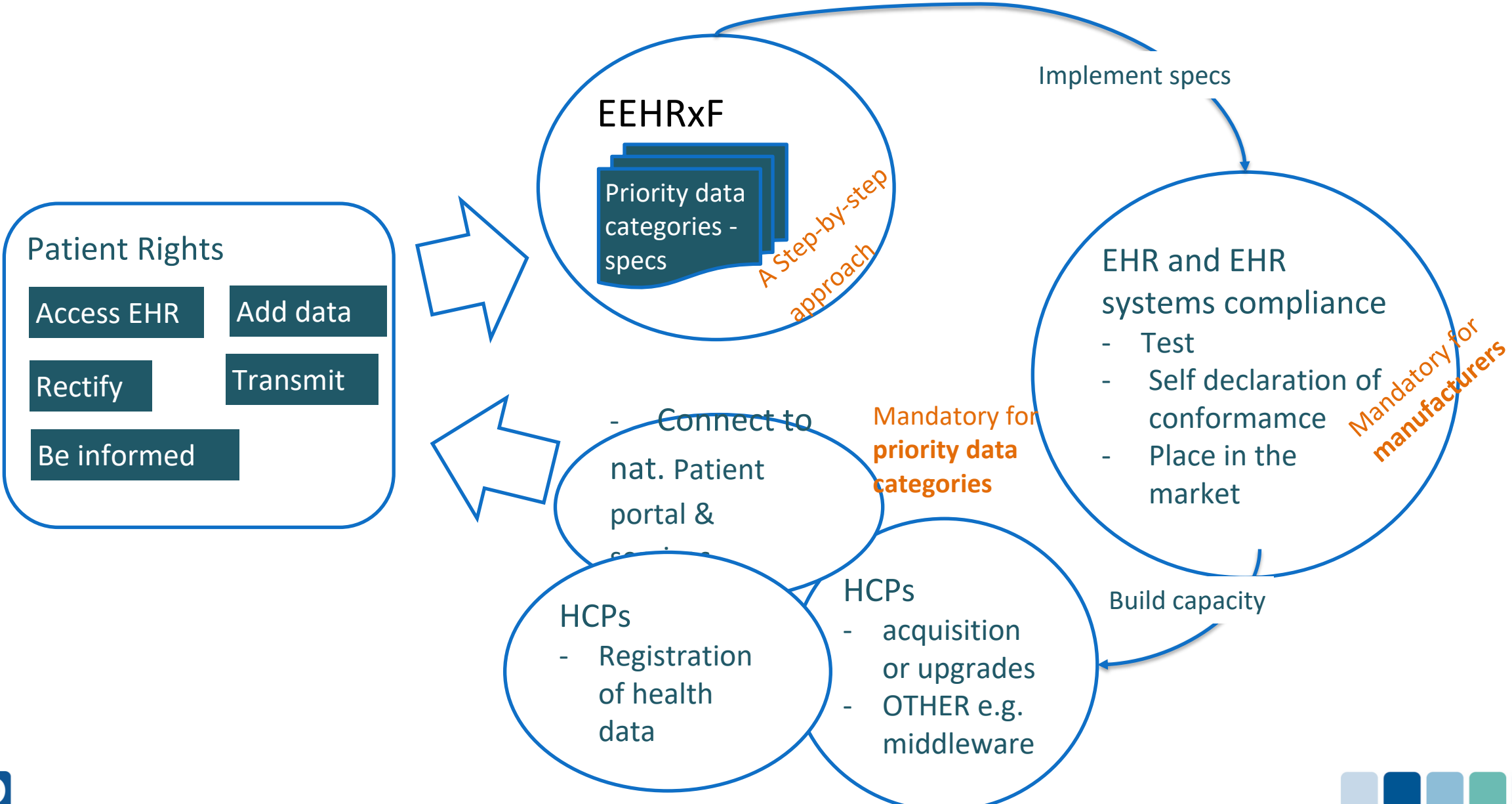
the **rights and obligations** of patients, healthcare providers, data holders and users

the **governance structures** (e.g. Health Data Access Bodies)

the **technical and organisational requirements**

The EHDS is what is actually built, operated, and experienced in practice.

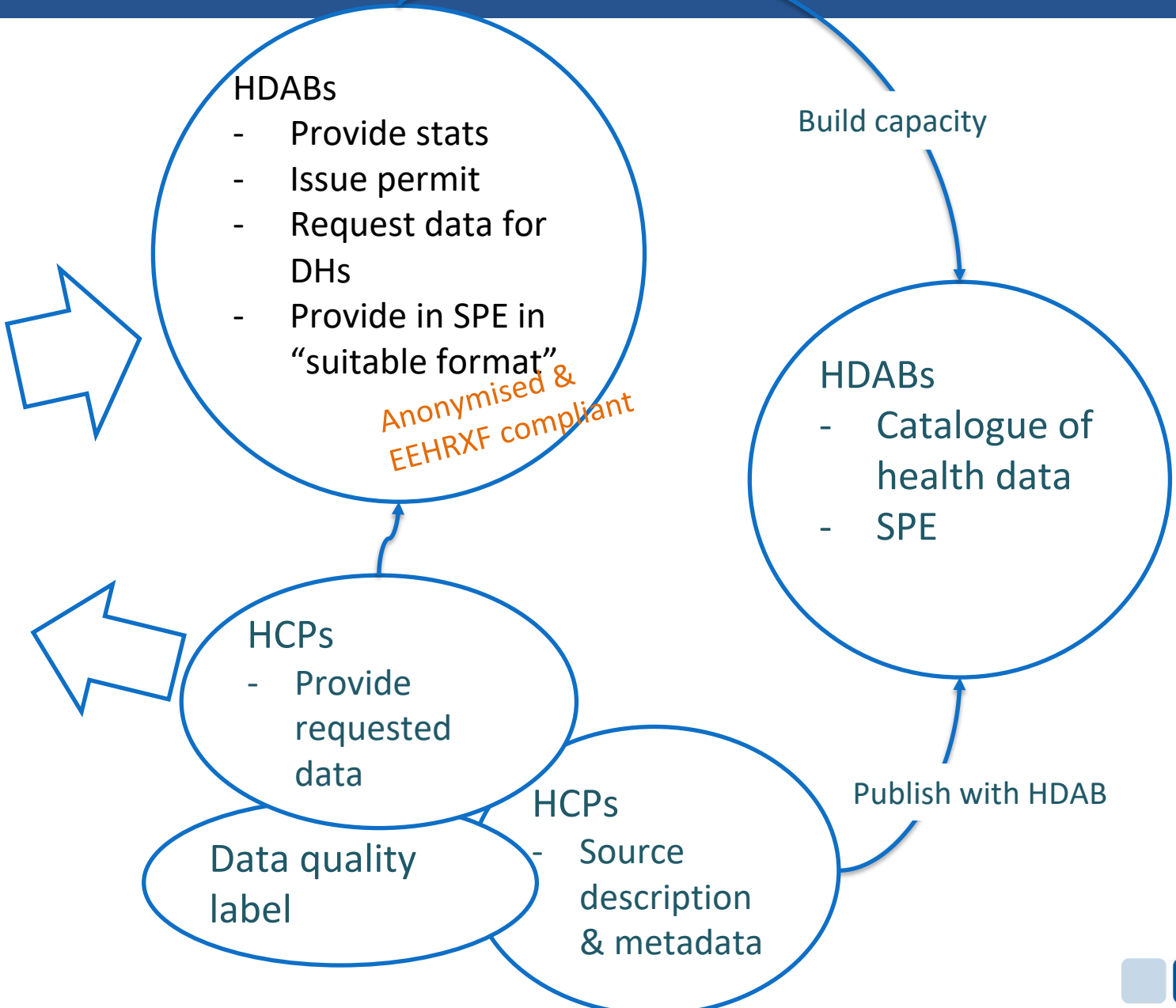
EHDS1 –Patient Rights and pathway to implementation



EHDS2 – re-using health data for research and innovation

Innovators Rights & Responsibilities

- Find data
- File Request
- Access data
- Process in sPE
- Publish results



Beyond compliance..... SUCCESS will be



clinical utility

clinical coverage

accurate clinical meaning within and cross countries)

trust in the data

seamless workflow integration



ease of national implementation,

low burden for hospitals and vendors

ability to support future technologies



Market adoption

stability,

predictability

... in how the EHDS impacts **trustworthy, well-structured, re-usable, value-creating data in routine care and in research**

The Problem

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Proposed Solution (for validation/ discussion)

12.00-12:45	Isabelle	AIDAVA. AI driven data curation & quality enhancement of patient records. How can it support EHDS for Data Holders Discussion on comparative cost model (current situation and with AI powered AIDAVA like assistant)
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Summary of EHDS Impact Assessment (2022) (over 10 years)

ADDED AFTER MEETING



Primary use	Cost €0.5 - 3B	Benefits €5.5-5.6 B
	<p>€12 M (Commission & MS): EU digital health expert group (develop guidelines, requirements, labels & assessment frameworks)</p> <p>€39-109 M (MS): full deployment and operation of MyHealth@EU.</p> <p>€0.1-1.1 B (developers and market operators): implement and obtain labels.</p> <p>€32 M (Commission) DB for certified/labelled products.</p> <p>€0.3-1.7 B (developers and market operators): implement and obtain the third-party certifications for and voluntary labels.</p> <p>MISSING: cost for data holders to generate EEHRxF</p>	<p>€5.4 B (Healthcare providers, patients) : increased uptake of telemedicine & more efficient exchanges of health data.</p> <p>€ 173- 232 M (Healthcare providers, patients) faster deployment of cross-border ePrescription & medical imaging services through MyHealth@EU.</p> <p>Faster growth of the digital health and wellness applications markets, expected at 5at 20-30% and 15-20%per year, respectively</p> <p>MISSING: more efficient healthcare delivery with AI support</p>
Secondary use	Costs (C): € 0.4-0.7B	Benefits (B): € 5.4 B
	<p>€13 M (Commission & MS): governance of HDABs.</p> <p>€39-157 M (MS): establishment and functioning of additional HDABs.</p> <p>€176-287 M (Commission & MS): deployment and operation of the infrastructure for the European network of HDABS</p> <p>€97-204 M (data reusers) : make available and access data in EHDS including actions to support interoperability, data quality, and AI</p> <p>€25-81M (data owners): data quality label.</p> <p>MISSING: cost for data holders to manage queries</p>	<p>€3.4 B : reuse of health data for researchers and innovators</p> <p>€0.8 B: information transparency for policy-makers and regulators (including additional €36-58 M in revenues for HDABs).</p> <p>€1.2 B in increased value for patients and healthcare providers thanks to further reuse of health data.</p> <p>MISSING: increase quality and speed of secondary dataset</p>

Key message

AI tools like AIDAVA can dramatically reduce the cost of EHDS



Sad reality about our health data

± 70%

hospital data in
narrative free text

± 30%

redundancy

± 40%

errors

5-year EU-27 cost of EHDS implementation

Current

€19.7 B

AI powered

€1.1 B

EHDS1: EEHRxF

€ 4.3 B

€ 0.4 B

EHDS2: HDAB queries

€15.3 B

€0.7 B

Hospital System
upgrade

€35.6 B

€36 B

Most of the EHDS cost falls on hospitals & registries

Can they charge it all back (for queries) ?

Who will pay for EHDS1 ?

And what will be the value for them ?

WITH AI: a €18 B saving over 5 years (execution)

AIDAVA-style automation of curation + SPARQL queries

-94%

EHDS cost
(execution only)

-44%

EHDS cost (HIMS
update + execution)

Curate once, use many times.

Solid semantic foundation: a
“digital twin” of the patient
record (PHKG).

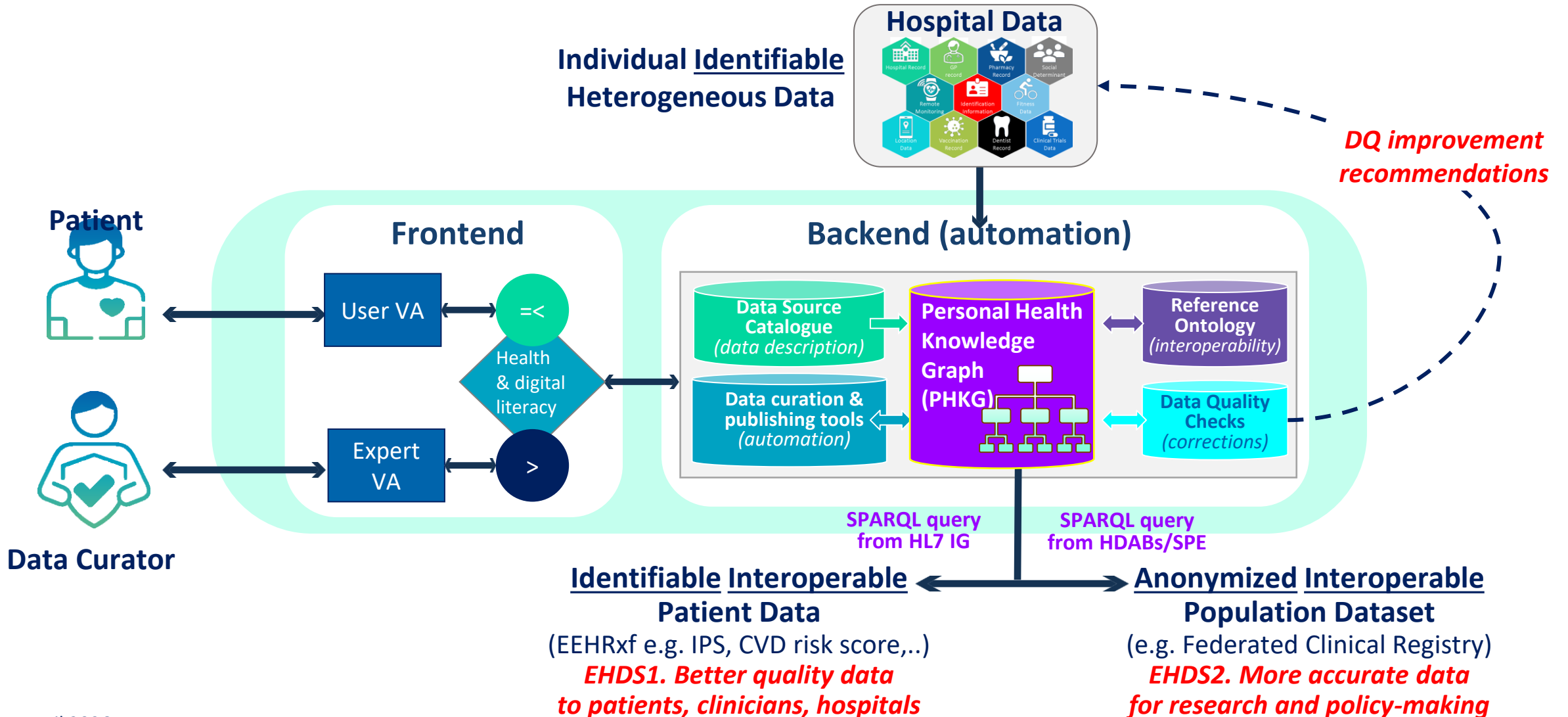
Just-in-time generation of
EEHRxF and HDAB datasets from
SPARQL queries.

Additional CLINICAL BENEFITS

AI powered EHDS becomes a source of benefits

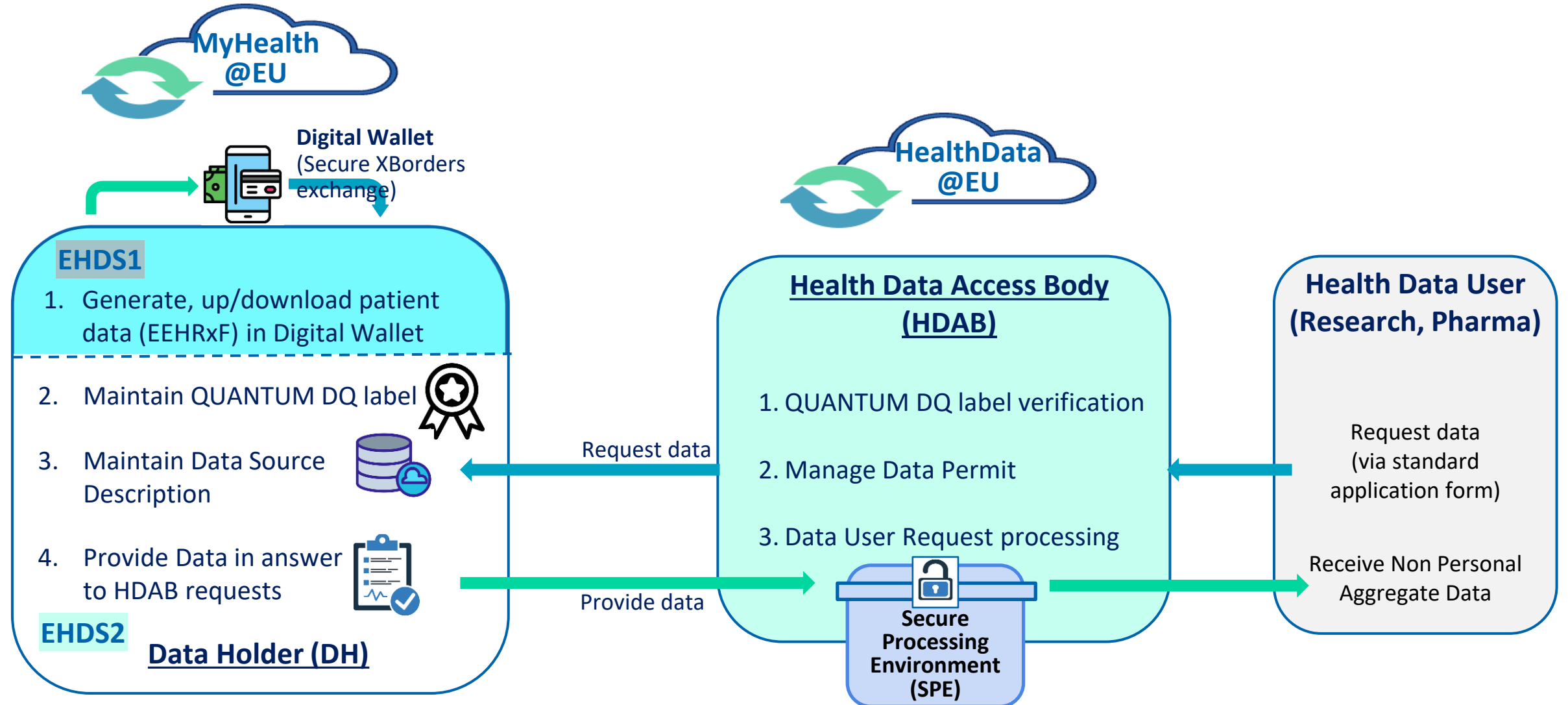
AIDAVA (TRL5/6 prototype validated in 4 hospital/ 3 languages)

Builds a *digital twin of the patient record*



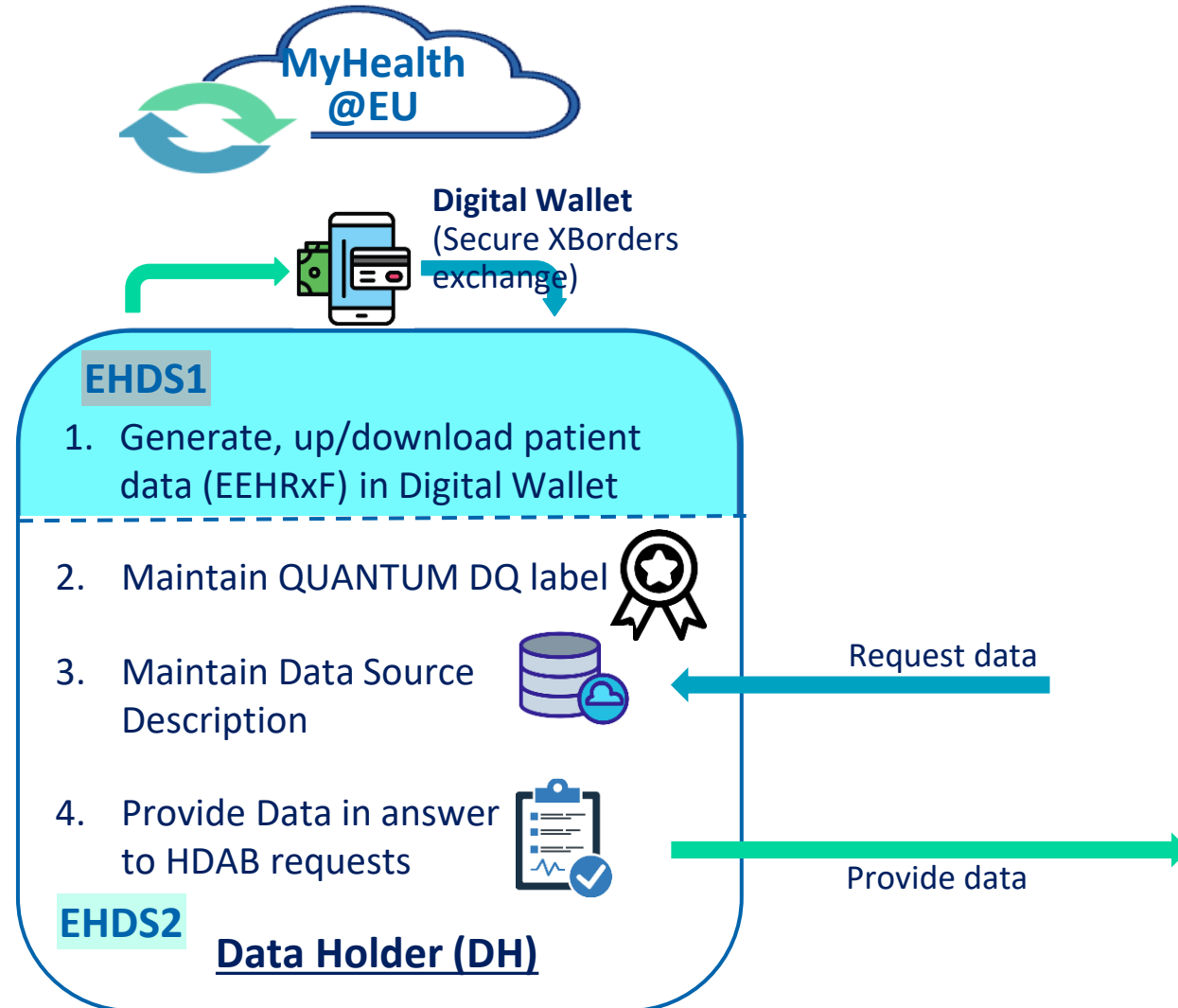
Deep dive in EHDS Data Flows

Overview



Deep dive in EHDS Data Flows

Requirements for Data Holders



Needed by Data Holders

- **EHDS1: Provide EEHRxF compliant data**
 - Generate/upload and download/integrate
 - data extraction of a patient relevant data
 - **transformation into HL7 FHIR (EEHRxF)**
 - Bridge to eHealth National Contact Point

Needed skills: HL7 FHIR,

- **EHDS2. Provide data in answer to HDABs request**

- Maintain Data Source Description (Data holder population level metadata)
- Develop/Buy Tools to support
 - extraction of data on demand
 - **transformation in required format**

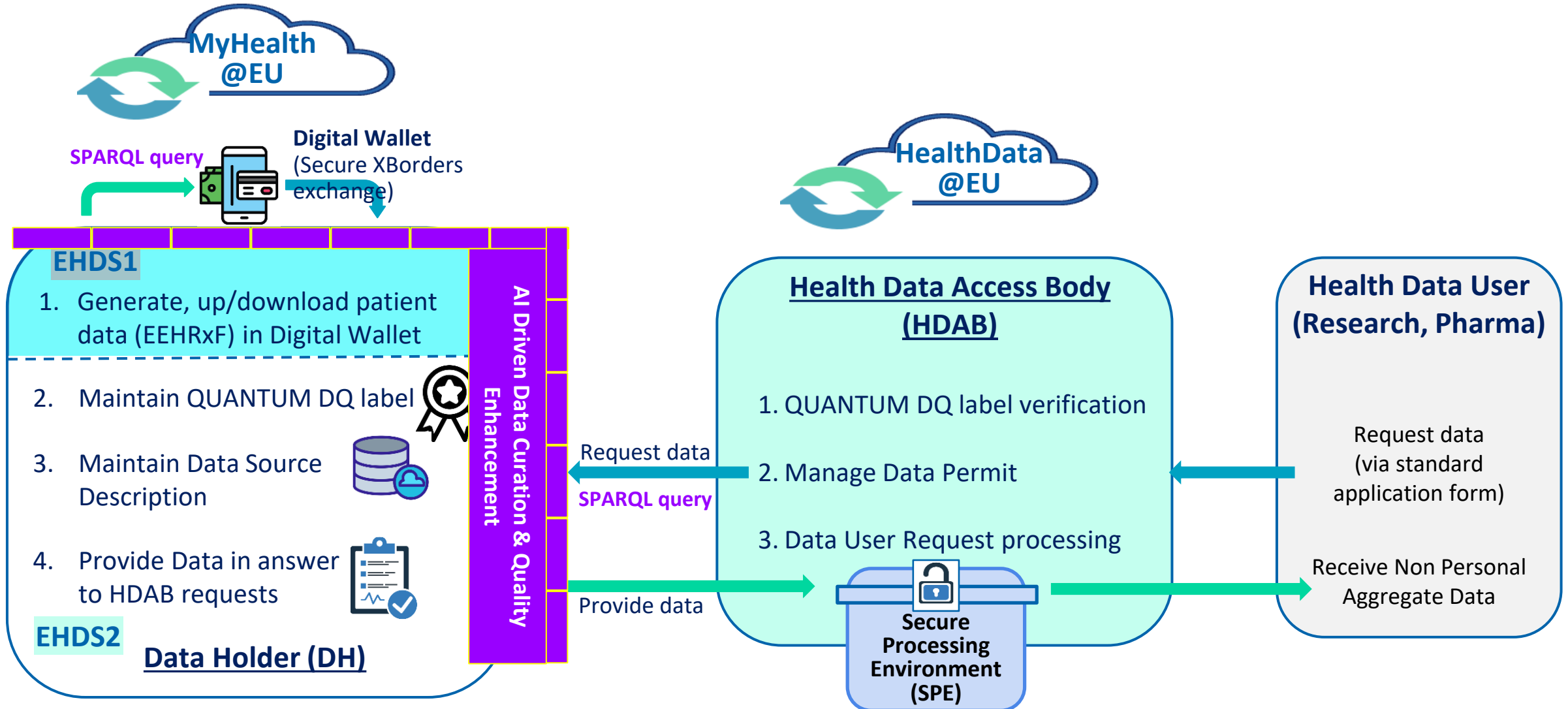
Needed skills: data scientists

In case of vendors managed systems,

- Pay for additional services required by EHDS
- Ensure integration across vendors

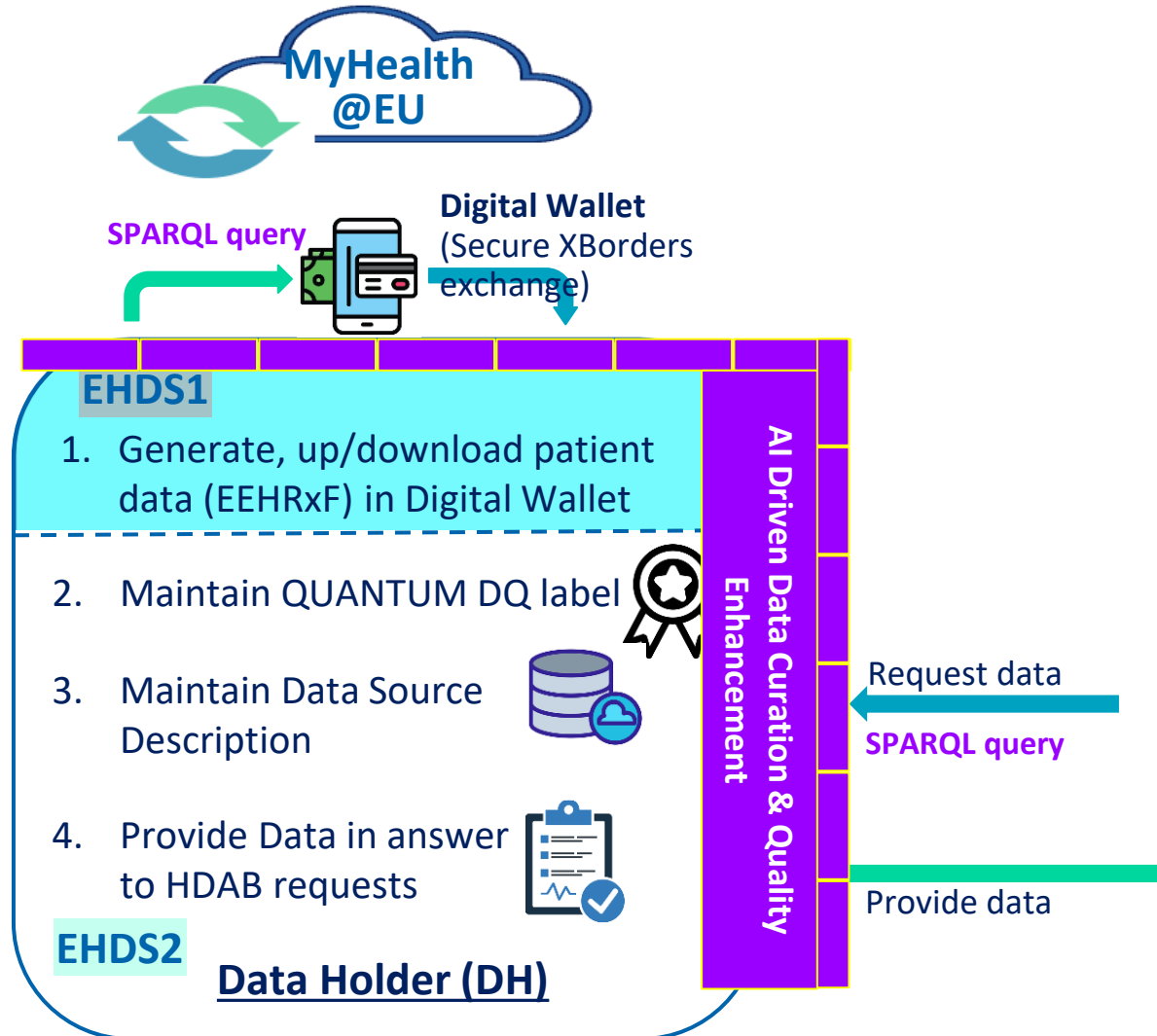
Deep dive in EHDS Data Flows

Adding AI driven high-quality “digital twin” of patient records



Deep dive in EHDS Data Flows

Adding AI driven high-quality “digital twin” of patient records



Benefits by Data Holders: data quality

- **Compliance to EHDS1 and EHDS2** at low cost
- **Additional benefits with digital twin**
 - Quality of content: ability to put something correct, safe & reasonably complete into EEHRxF,
 - Transparency: ability to identify and explain how data inconsistencies are safely handled.
 - Coordinate record: ability to match incoming data with existing EHR data
 - clinician can see unified information (e.g. unified medication list)
 - supports personalised care
 - AI readiness: smooth transformation of patient data in format needed by AI tool
 - Research: smooth delivery & maintenance of local registries

Can we optimize EHDS implementation cost and increase its benefits across stakeholders ? Can AI help ?

Current reality



- Suboptimal individual record quality
- Data non interoperable/reusable
- Costly transformation of data
- Limited personalised (AI) care

EHDS with current approach



- Unclear semantic Data foundation
- Costly recurrent data curation for EEHRxF (EHDS1) and for queries (EHDS2)
- Questions on AI potential

EHDS powered by AI



- Solid semantic Data foundation (maintained by AI): *“digital twin” of patient record (knowledge graph)*
- Just-in-time generation of EEHRxF, and datasets in answer to queries

**Curate every time,
use once**

**Curate once,
use many times**

- Impact Assessment of EHDS (2022) : high level estimates of the costs
 - probably obsolete (include Covid Recovery fund to support interoperability)
- By making **simplification** assumptions it is possible to develop **INDICATIVE** cost supporting decision making
- This cost analysis includes 2 parts
 - Hospital level: cost to generate EEHRxF& answer to queries
 - Member State level: overall cost of EHDS1 and EHDS2 based on multiple parameters

The purpose of this session is to initiate the discussion and validate the assumption that AI based curation (like AIDAVA) of patient records is the most cost-effective (and beneficial) way to implement EHDS

Key parameters: can be changed in the model

Cost estimates (Current and with AI) across ALL countries



Parameter	Current	AIDAVA like tool	Comment on difference
AVG one of (change HIMS) - KEUR	€5,000	€5,100	(in average needed in 50% hospitals)
update HIMS for EEHRxF/ period - KEUR	€425	€300	One off cost (limited maintenance)
unit cost for curation of patient record	NA	€0.10	Support to answer questions
unit cost for generating EEHRxF - KEUR	€0.10	€0.05	½ manual vs SPARQL query (derived from EEHRxf/ HL7 FHIR IG)
unit cost answer to query (DH) - KEUR	€5	€0.10	½ manual extraction & transformation vs SPARQLquery provided by HDABS
unit cost process query (HDAB) - KEUR	€50	€5.0	½ manual vs AI generated SPARQL
AVG # queries /country		500	Heavily variation across MS
# Data holders contacted/ query		100	(limited experience)
period (in year)		5	

Hospital Level Analysis

This is a simple cost model - taking only 2 factors into consideration (EEHRxF and Query generation)

It is a first indicator of the value of AI based solutions

HOSPITAL level: Comparative cost with & without digital twin

10 hospitals, 5 years, per year: 1500 records, 1500 EEHRxF, 500 HDAB queries



DATA FLOWS ONLY (NOT ORG)			CURRENT SCENARIO (K€)			
		Steps	One of	Per unit	Yearly	Total Period
Data Holders / EHR Vendors		Curation	€0.0	€0.00	€0.0	€0
	EHDS1	EEHRxf	€300.0	€0.10	€450.0	€2,250
	EHDS2	Data Description	€50.0	€0.25	€51.5	€258
		Answer to request	€0.0	€5.00	€2,500	€12,500
		Total/Data Holder				€15,008
		TOTAL ALL DH				€150,075
HDAB						
		Curation	€0	€50	€25,000	€125,000
TOTAL						€275,075

Numbers in red: assumptions to be verified. Their value is in comparative cost rather than total cost.

HOSPITAL level: Comparative cost with & without digital twin

10 hospitals, 5 years, per year: 1500 records, 1500 EEHRxF, 500 HDAB queries



DATA FLOWS ONLY (NOT ORG)			CURRENT SCENARIO (K€)				Curation data sources with AI (K€)			
		Steps	One of	Per unit	Yearly	Total Period	One of	Per unit	Yearly	Total Period
Data Holders / EHR Vendors		Curation	€0.0	€0.00	€0.0	€0	€300.0	€0.10	€450.0	€2,250
	EHDS1	EEHRxf	€300.0	€0.10	€450.0	€2,250	€20.0	€0.05	€95.0	€475
	EHDS2	Data Description	€50.0	€0.25	€51.5	€258	€5.0	€0.05	€5.3	€27
		Answer to request	€0.0	€5.00	€2,500	€12,500	€10.0	€0.05	€35.0	€175
		Total/Data Holder				€15,008				€2,927
		TOTAL ALL DH				€150,075				€29,265
HDAB Curation			€0	€50	€25,000	€125,000	€0	€5	€2,500	€12,500
TOTAL						€275,075				€41,765

Numbers in red: assumptions to be verified. Their value is in comparative cost rather than total cost.

(diff 6,59)

HOSPITAL level: Comparative cost with & without digital twin

10 hospitals, 5 years, per year: 1500 records, 1500 EEHRxF, 1000 HDAB queries



DATA FLOWS ONLY (NOT ORG)			CURRENT SCENARIO (K€)				Curation data sources with AI (K€)			
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	EHDS2	Data Description	€50.0	€0.25	€51.5	€258	€5.0	€0.05	€5.3	€27
		Answer to request	€0.0	€5.00	€5,000.	€25,000	€10.0	€0.05	€60.0	€300
		Total/Data Holder				€27,508				€3,052
		TOTAL ALL DH				€275,075				€30,515
HDAB		Curation	€0	€50	€50,000	€250,000	€0	€5	€5,000	€25,000
TOTAL					€525,075				€55,515	(factor 9,46)

Numbers in red: assumptions to be verified. Their value is in comparative cost rather than total cost.



HOSPITAL level: Comparative cost with & without digital twin

10 hospitals, 5 years, per year: 1500 records, 1500 EEHRxF, 500 HDAB queries

Parameters included in model

1. **Data Holders/ EHR vendors**
 - Curation of Data Sources (*optional*)
 - EHDS1: generation of EEHRxf
 - EHDS2:
 - Maintain data description
 - Answer to queries

1. **HDAB**
 - Integrate & curate data coming from many DHs

	Curation in DH	Curation in HDAB
Current approach (manual/ ETL)	€271,015	€281,325
AIDAVA approach (automated/ AI & others)	€41,765	€182,825
DIFFERENCE: curation in HDAB versus curation in DH	6.74	



HOSPITAL level: Comparative cost with & without digital twin

10 hospitals, 5 years, per year: 1500 records, 1500 EEHRxF, **1000 HDAB queries**

Parameters included in model

1. **Data Holders/ EHR vendors**
 - Curation of Data Sources (*optional*)
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 - EHDS2:
 - Maintain data description
 - Answer to queries

1. **HDAB**
 - Integrate & curate data coming from many DHs

	Curation in DH	Curation in HDAB
Current approach (manual/ ETL)	€308,515	€531,325
AIDAVA approach (automated/ AI & others)	€55,515	€332,825
DIFFERENCE: curation in HDAB versus curation in DH	9.57	

Model is too simple and benefit/difference too big to be credible
2 scenarios retained for detailed analysis: Curation in HDAB (current default) and Curation with AI

Member State Analysis

Multifactorial model

Values for some parameters estimated with ChatGPT & Gemini => **ESTIMATES to be considered as indicative !**

Member State level

Basic Parameters (for each country)



- **General parameters (WHO)**
 - # Citizens (M)
 - % citizen in EU
 - # Hospitals
 - # hospitals/ population
 - # Medical Records per Citizen in (estimate)
- **Hospital maturity (chatGPT and GEMINI estimate)**
 - % hospitals who need change in their EHR/HIMS system
 - maturity
 - rationale
- *# Registries & Biobanks*
- **EHDS1 and EHDS2 Maturity level (chatGPT and GEMINI estimate)**
 - EEHRxF (1-5)
 - HDAB Sem Int Score (1-5)
 - MyHealth@EU (1-5)
- **Number of EEHRxF generated per year/citizen**
- **Number of HDABs/SPE queries per country and per Data Holder**

Cost of HIMS/EHR system update

- Cost to update existing HIMS/EHR system to support EEHRxF \times % hospitals requiring change + cost to change totally HIMS/EHR systems (migrating to vendor) \times (1- % hospitals requiring change)

Cost of EHDS1 (processing only)

- **Cost of providing EEHRxF patients=**
cost of EEHRxF \times estimated # EEHRxF/patient in country \times # patients \times EHDS1 maturity of MS

Cost of EHDS2 (processing only)

- **Cost to process query within HDAB/SPE=**
Unity cost per query \times Estimates #queries issued per country \times EHDS2 maturity of MS
- **Cost to curate patient records within Data Holders (AI scenario only) =**
Unity cost to curate record with AI \times Estimates # record/patients in MS \times # citizen in MS
- **Cost to answer queries within Data Holders =**
Unit cost of query \times Estimates #queries received across (27) MS \times EHDS2 maturity of MS
- **Missing: cost to set up the process & infrastructure in HDABs**
(considered as marginal)

Overall Cost (5 years)

- Cost current approach
 - HIMS update: **€35,6 B**
 - EHDS1 (EEHRxF): **€ 4,3 B**
 - EHDS2 (query): **€ 15,3 B**
- AI tools like AIDAVA can decrease the cost by **44%** to **94%** (main impact on EHDS2)
- Majority of the cost of EHDS execution fall under Data Holders
 - Can they charge all EHDS2 cost to data users ?
 - Who will pay for EHDS1 ?

	DATA HOLDERS (MEUR)											HDA/SPEs		
	CURRENT (MEUR)					WITH AIDAVA like tools (MEUR)					DIFFERENCE		CURRENT	WITH AI
	HIMS update (ONE OF)		EEHRxF mgs	HDAB Query process	TOTAL	HIMS update (ONE OF)		EEHRxF mgs	HDAB Query process	TOTAL	HIMS update	Execut ion only		
	EEHRxF only	COMPLETE				EEHRxF only	COMPLETE							
Austria	€22	€510	€143	€342	€1,017	€15	€520	€14	€19	€569	44%	93%	€34	€3.4
Belgium	€16	€240	€126	€296	€677	€11	€245	€13	€13	€282	58%	94%	€30	€3.0
Bulgaria	€43	€1,190	€39	€481	€1,754	€31	€1,214	€4	€13	€1,261	28%	97%	€48	€4.8
Croatia	€7	€240	€24	€286	€557	€5	€245	€2	€8	€260	53%	97%	€29	€2.9
Cyprus	€1	€45	€4	€68	€118	€1	€46	€0	€2	€49	58%	97%	€7	€0.7
Czechia	€12	€715	€122	€410	€1,259	€9	€729	€12	€18	€768	39%	94%	€41	€4.1
Denmark	€11	€169	€46	€150	€375	€8	€172	€5	€15	€199	47%	90%	€15	€1.5
Estonia	€2	€28	€18	€26	€75	€2	€29	€2	€3	€35	53%	88%	€3	€0.3
Finland	€14	€285	€46	€105	€450	€10	€291	€5	€22	€327	27%	83%	€11	€1.1
France	€207	€7,300	€777	€1,709	€9,993	€146	€7,446	€78	€102	€7,772	22%	93%	€171	€17.1
Germany	€146	€9,588	€1,035	€1,588	€12,357	€103	€9,779	€104	€137	€10,123	18%	91%	€159	€15.9
Greece	€15	€1,031	€45	€774	€1,865	€10	€1,052	€4	€22	€1,088	42%	97%	€77	€7.7
Hungary	€14	€495	€105	€722	€1,335	€10	€505	€10	€23	€548	59%	96%	€72	€7.2
Ireland	€8	€220	€29	€199	€456	€5	€224	€3	€9	€241	47%	95%	€20	€2.0
Italy	€60	€3,180	€494	€2,210	€5,944	€42	€3,244	€49	€94	€3,430	42%	95%	€221	€22.1
Latvia	€11	€151	€12	€135	€309	€7	€154	€1	€4	€167	46%	97%	€14	€1.4
Lithuania	€15	€175	€26	€105	€321	€11	€179	€3	€4	€196	39%	95%	€11	€1.1
Luxembourg	€1	€18	€5	€26	€50	€1	€18	€1	€1	€21	59%	94%	€3	€0.3
Malta	€2	€30	€2	€38	€71	€1	€31	€0	€1	€33	54%	97%	€4	€0.4
Netherlands	€72	€1,095	€226	€449	€1,842	€51	€1,117	€23	€36	€1,226	33%	91%	€45	€4.5
Poland	€94	€2,695	€264	€1,376	€4,428	€66	€2,749	€26	€51	€2,893	35%	95%	€138	€13.8
Portugal	€10	€705	€76	€263	€1,054	€7	€719	€8	€13	€747	29%	94%	€26	€2.6
Romania	€57	€2,025	€99	€1,428	€3,610	€41	€2,066	€10	€38	€2,154	40%	97%	€143	€14.3
Slovakia	€26	€450	€59	€406	€941	€18	€459	€6	€12	€495	47%	96%	€41	€4.1
Slovenia	€3	€90	€14	€158	€264	€2	€92	€1	€5	€100	62%	96%	€16	€1.6
Spain	€53	€1,875	€455	€1,213	€3,596	€38	€1,913	€46	€61	€2,056	43%	94%	€121	€12.1
Sweden	€15	€193	€68	€398	€674	€11	€196	€7	€27	€240	64%	93%	€40	€4.0
TOTAL	€936	€34,737	€4,358	€15,363	€55,395	€661	€35,431	€436	€753	€37,282	44%	94%	€1,536	€154
	€35,673		€19,721			€36,092		€1,189						

Member State level

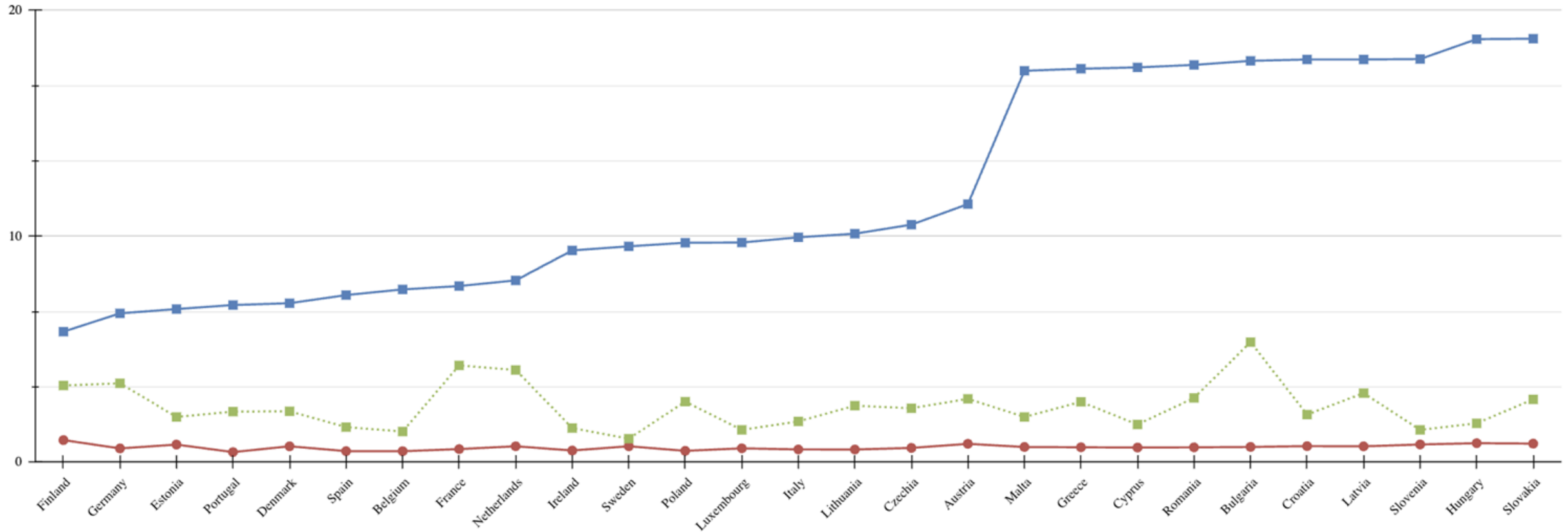
Cost per citizen & relation with %hospitals in population



Cost of EHDS (processing only) across MS per citizen - PER YEAR

Processing Only

■ EHDS - cost per citizen (EUR) ● AI - EHDS - cost per citizen (EUR) ■ % hosp/population (* 10)



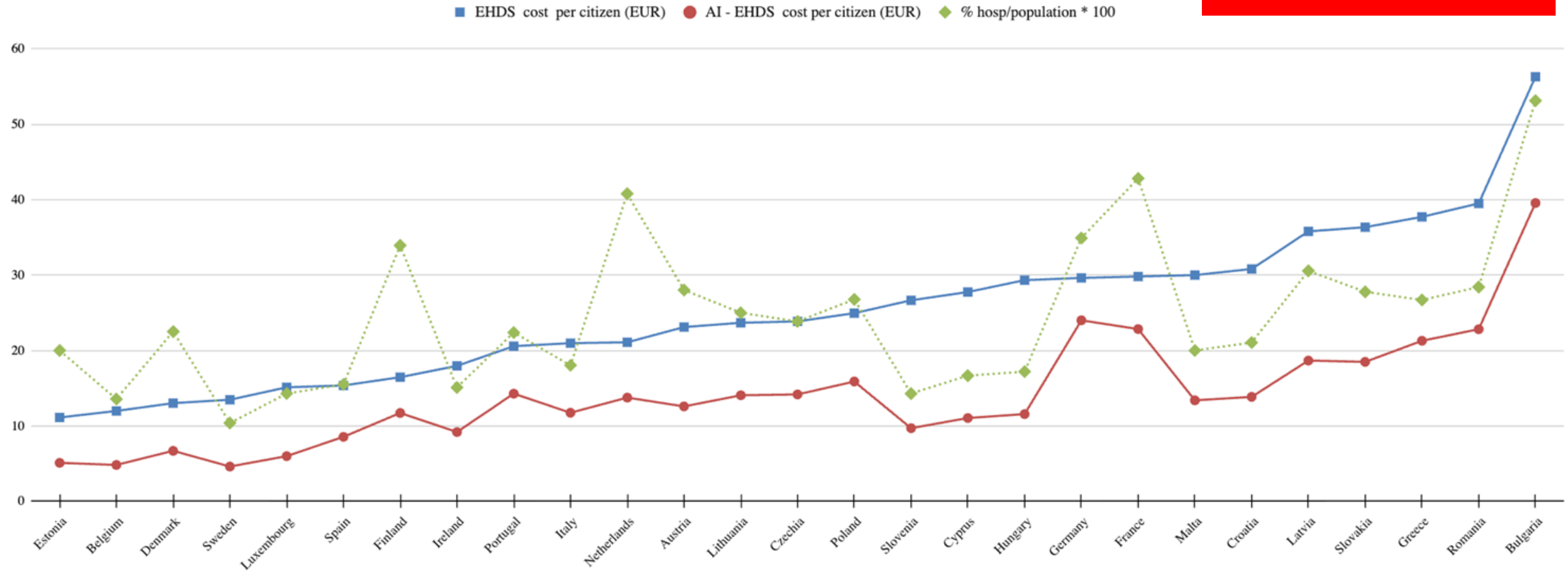
Member State level

Cost per citizen & relation with %hospitals in population



Cost of EHDS (with HIMS update) across MS per citizen - PER YEAR

HIMS update included



Member State level

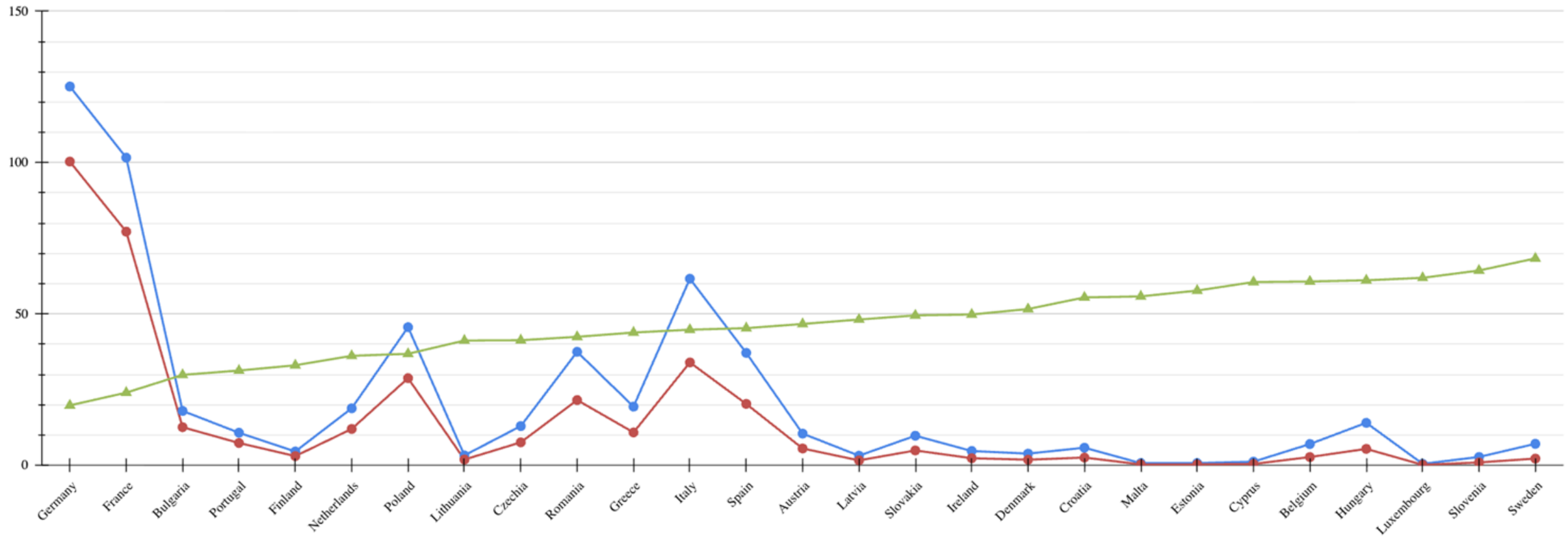
Total cost (100 MEUR) with and without AIDAVA like tools



IMPACT of AI on EHDS cost (EHDS with HIMS update) - 100 MEUR

HIMS update included

● EHDS - Grand Total - 5 Y (100 MEUR) ● AI-EHDS - Grand Total - 5 Y (100 MEUR) ▲ DIFF (%) - Curent versus AI



Member State level

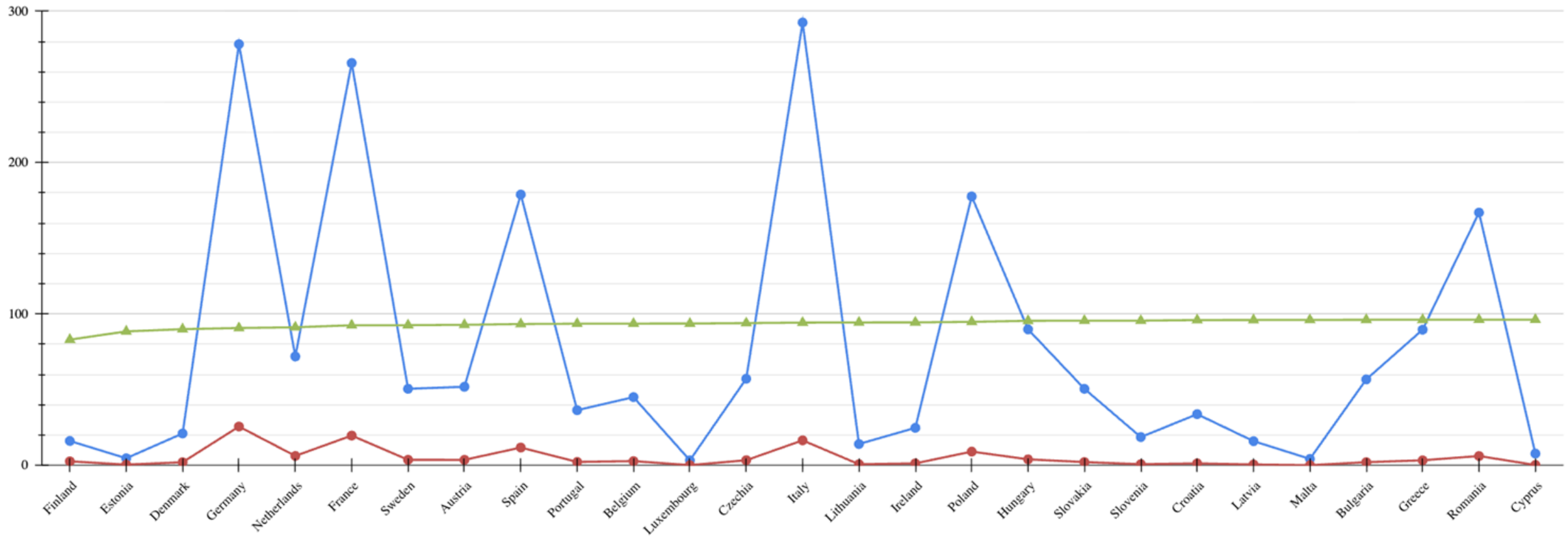
Total cost (10 MEUR) with and without AIDAVA like tools



IMPACT of AI on EHDS cost (processing only - (10 MEUR))

Processing Only

● EHDS - Grand Total - 5 Y (10 MEUR) ● AI-EHDS - Grand Total - 5 Y (10 MEUR) ▲ DIFF (%) - Curent versus AI



BENEFITS

EU-27 Annual Value of Complete Longitudinal Health Records



Value Driver	Annual EU-27 Benefit	Confidence / rationale
Duplicate diagnostic elimination	€31–40B	High (strong): 20–30% of diagnostic imaging & laboratory tests
Medication error prevention	€14–22B	High: 40–60% preventable (cost per ADE: 25 to 5 KEUR)
Readmission reduction	€3.2B	High: rate is 9–15% across EU-27 for common conditions
Avoidable hospitalisations	€1.5B	Medium: 8–12% avoidable with prevention
Chronic disease coordination	€27B	Medium: ≥2 chronic conditions = ~30% of EU adult population, ~70% of healthcare expenditure (± €910 billion/year)
Personalised care	(not measure)	Decrease morbidity/mortality; AI readiness multiplier
Conservative total	~€50–60B/year	
Upper bound	~€90B/year	

NOTE: These benefits require more than AIDAVA like tools & digital twin (± 20% / ~€10B/y only related to AIDAVA)

- Data must also be pooled across Data holders,
- Tools must be developed to use content of “digital twin” generated / maintained by AIDAVA

Conclusion of cost-benefit analysis (assuming model is correct !)

EHDS with current approach



- **Cost of EHDS : 19,7 BEUR/ 5 years**
 - EHDS1: 4,3 BEUR
 - EHDS2: 15,3 BEUR
- **Cost to update to HIMS: 35,6 BEUR**
- Does NOT cover quality of personal health record
- **Benefit:** compliance, limited clinical value

-94%
EHDS cost
(execution only)

EHDS with AI powered digital twins



- **Cost of EHDS (down by ± 94%): 1,1 BEUR/5 years**
 - EHDS1: 0.4 BEUR
 - EHDS2: 0.7 BEUR
- **Cost to update to HIMS: 36 BEUR** (0.4 BEUR to curate patient records to generate FAIR digital twins)
- **Benefits:** compliance + clinical value (**± 10 BEUR/Y**)

- Most of the burden of EHDS is on the Data Holders, mainly to answer HBABs queries (to be charged !)
- AI powered digital twins of patient records decrease cost of EHDS and bring additional benefits that largely offset the cost. **AI powered EHDS becomes a source of benefits.**

Call to actions: bringing together existing EU assets, leveraging AI technologies



2029 AI powered EHDS Cost-effective & clinical value

Current reality of Health care systems



- Suboptimal individual record quality
- Data non interoperable & non readily reusable
- Costly transformation of data
- Limited personalised (AI) care

AI ENABLERS of high-quality, interoperable data

AIDAVA (like) orchestration

Library of tools (AloD/AI4Health)
Supporting tech services (EDIH)
Operationalisation services

CONCRETELY

1. Validate cost model / MS (Roundtable)
2. Run AIDAVA National Pilots
3. Strengthen AI enabling EU Semantic Interoperability Roadmap
4. Consolidate within an EU Open Source Ecosystem for AI in Health



- Solid semantic Data foundation (maintained by AI): *“digital twin” of patient record*
- Just-in-time generation of EEHRxF, and datasets in answer to query - for research & clinical care

Questions

- Do the cost ESTIMATES make sense
- Can you reach compliance without update/change to your HIMIS/EHR system. If yes how, at which cost ?
- How should hospitals finance additional cost for EHDS compliance
- How could benefits gain from this additional effort toward compliance

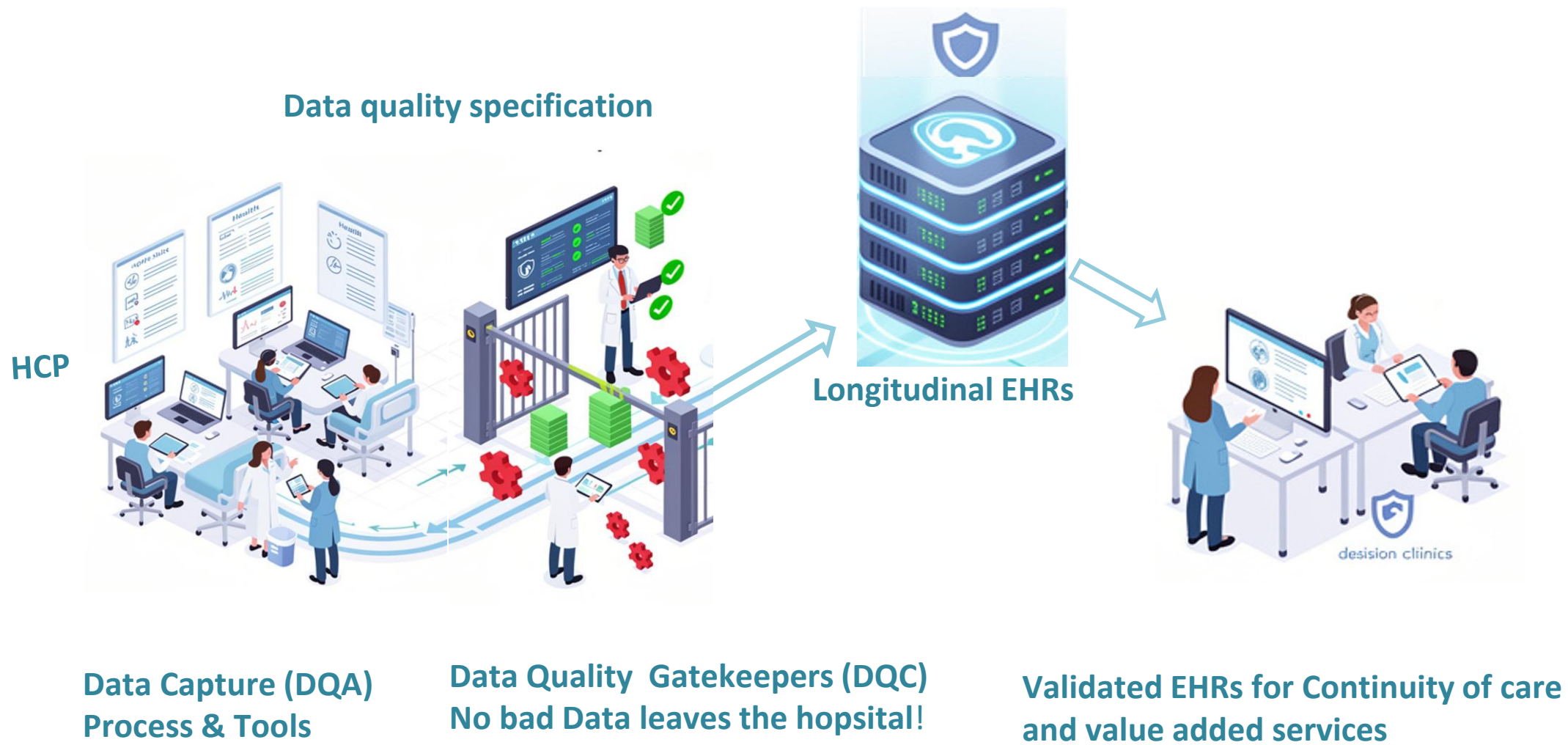
Challenges & Recommendations

13.45-14.45	Peeter, Terje	Discussion: Summarize discussion so far; direct and indirect BENEFIT of high quality, reusable data (for EHDS, other: personalised care, AI readiness,...)
14.45-15.15	Terje/ Peeter	Consensus on most pressing challenges & potential solutions
15.15-15.39		<i>Coffee break</i>
15.30-16.30	Zoi/Isabelle	Needed success factors (Call to action white paper/ 1 page memorandum): what, who, how
16.30-17.00	Terje	Conclusions - next steps

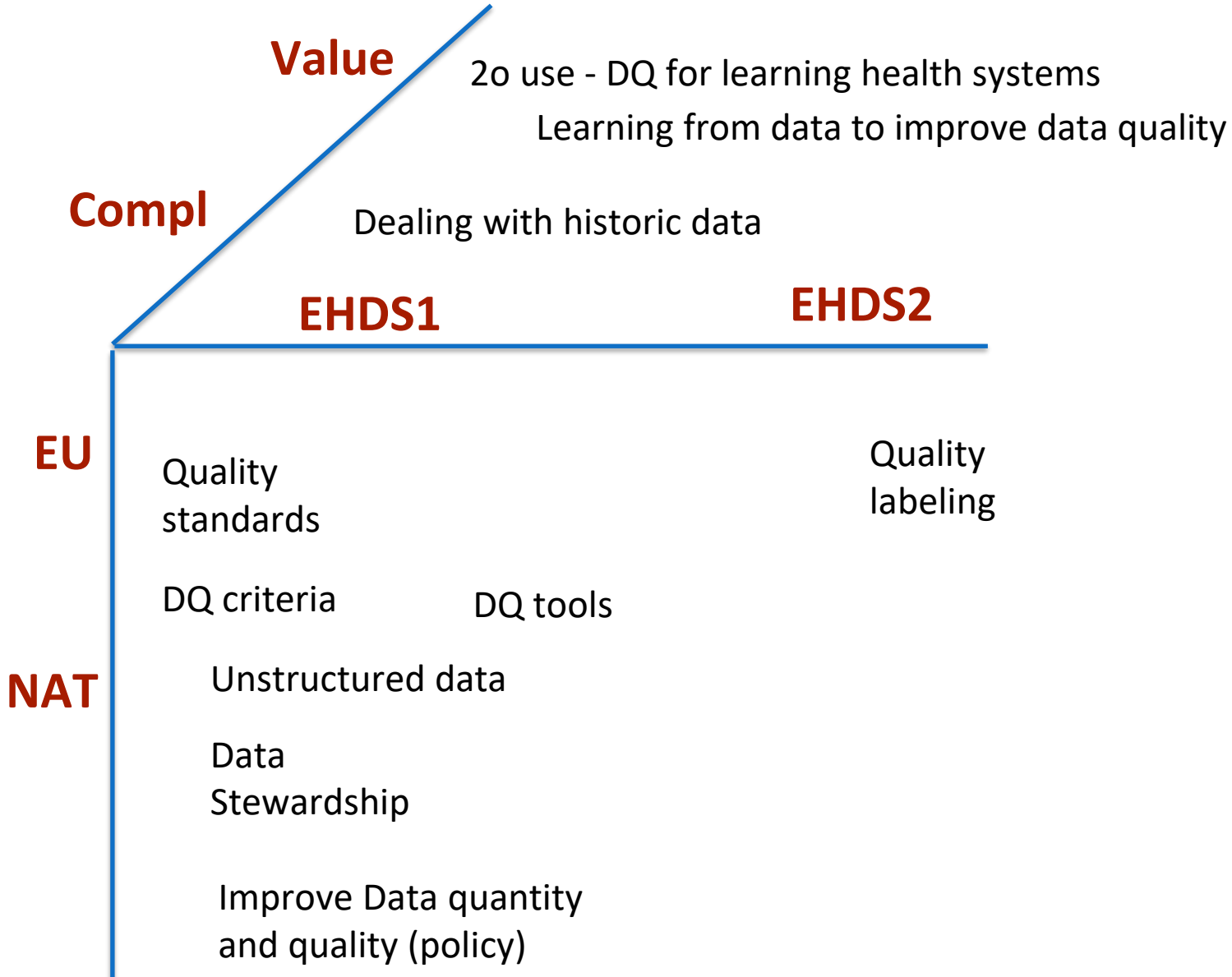
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Data Quality at the source - Building trust in the data exchanged



Data Quality



Conveying the messages outside of this room

WHO	WHAT (message)	HOW by whom
Hospital Managers		
Hospital Association		
MS/ Public Health		
European Commission		
????? (Data Brokers/ Pharma)		

Thank you !
